

## ABSTRACT

Provided is a multimode optical transmission system capable of reducing an influence of multimode dispersion occurring when an optical signal is transmitted in multimode. Light sources 5 (101 to 10m) respectively convert inputted electrical signals into a plurality of optical signals respectively having different wavelengths, and respectively output the plurality of optical signals. A wavelength multiplexing section (200) performs wavelength multiplexing of the plurality of optical signals 10 outputted from the light sources (101 to 10m), and outputs a resultant signal as a wavelength multiplexed signal. A multimode optical transmission path (300) optically transmits the wavelength multiplexed signal in multimode. A mode processing section (400) extracts, from the wavelength multiplexed signal transmitted 15 through the multimode optical transmission path (300), a plurality of optical signals each being in a mode having a particular wavelength and a particular propagation constant. Optical receiving sections (501 to 50m) receive the plurality of optical signals having been extracted, and convert the received optical 20 signals into electrical signals.